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(56) Documents cited

GB 2215775 A

GB 2101199 A

GB 2084646 A

EP 0116697 A2

(58) Field of search

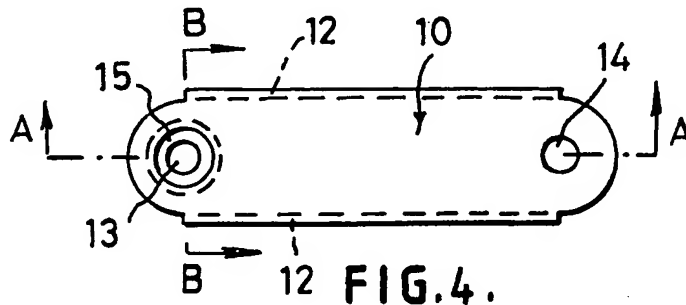
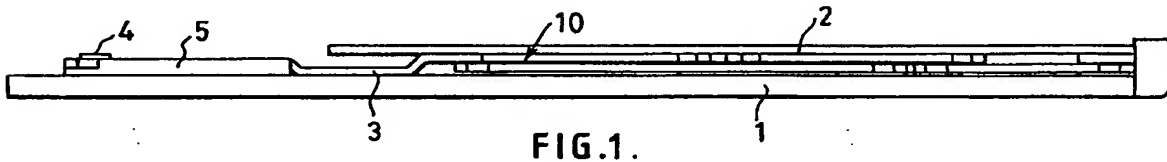
UK CL (Edition K) E2F FPB FSG FSJ FSS FSX

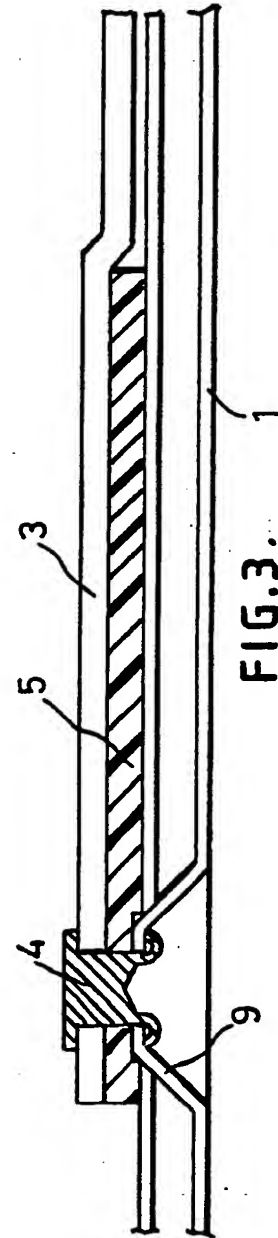
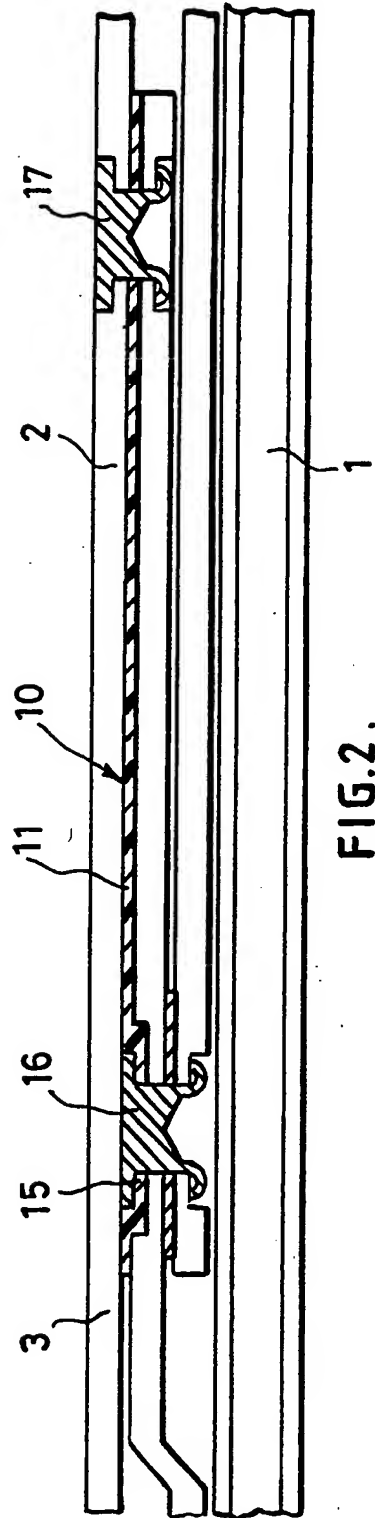
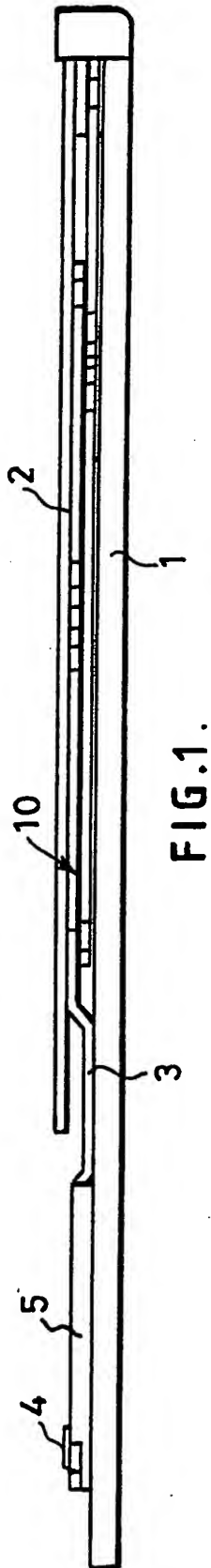
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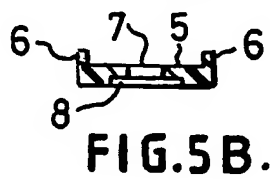
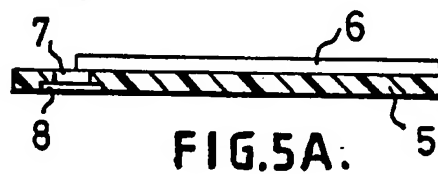
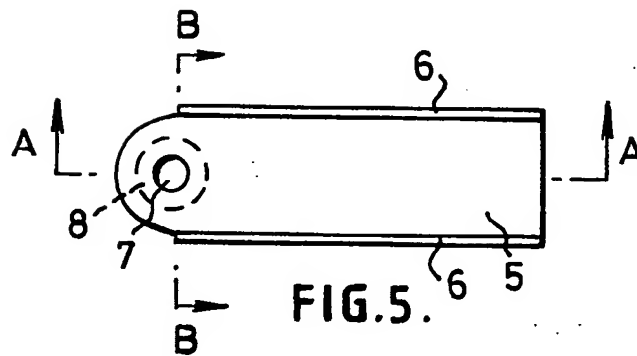
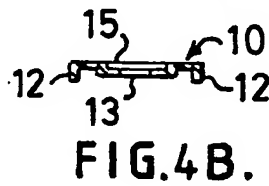
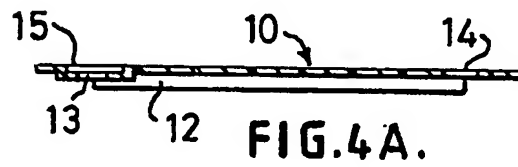
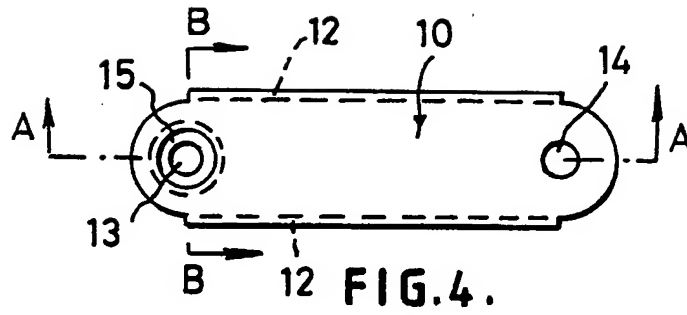
(54) **Shims for window hinges**

(57) A shim (10) for a window hinge comprises an elongated member (11) with side walls (12) made of a plastics material. The ends of the elongated member (11) are curved with holes (13 and 14), one of the holes (13) having a surrounding recess (15).

The window hinge has a linkage (2, 3) slidable in a track (1), the linkage including upper (2) and lower (3) links, the shim (10) being located between the upper and lower links. The shim provides a wear-free smooth surface between the upper (2) and lower (3) links.







SHIMS FOR WINDOW HINGES

This invention relates to shims for sidehung window hinges.

Sidehung window hinges of the type in which the window is supported to a ventarm connected by a linkage to both a horizontal track secured to the window frame, and to a slide mounted via a link to the ventarm to slide along the track while the window is being opened and closed are well known. These hinges may have the lower link coated with a plastics material to provide a wear-free smooth surface for the links as the ventarm passes over the linkage and the track on opening and closing of the window.

This known sidehung hinge has the disadvantage that the plastics coating is expensive.

An aim of the present invention is to overcome this disadvantage and provide a shim to replace the plastics coating, which is easy to fit and less expensive than the plastics coating of the hinge members.

According to the present invention there is provided a shim for a sidehung window hinge comprising an elongated member of plastics material with apertures adjacent the ends of the elongated member to secure the shim to a window hinge link.

In a preferred construction the elongated member has side walls.

Preferably the shim is made of nylon.

Conveniently, one of the apertures has a recess for receiving a head of a rivet.

According to the invention there is also provided a sidehung window hinge comprising a shim as set forth in the three preceding paragraphs.

An embodiment of the shim according to the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 is a side elevation of a sidehung window hinge fitted with a shim;

Figure 2 is a fragmentary enlarged longitudinal section of the window hinge shown in Figure 1;

Figure 3 is a fragmentary enlarged longitudinal section of a supporting pad shown in Figure 1;

5 Figure 4 is a plan view of a shim shown in Figures 1 and 2;

Figure 4A is a longitudinal section taken along the line A-A of Figure 4;

Figure 4B is a cross-section taken along the line
10 B-B of Figure 4;

Figure 5 is a plan view of a supporting pad shown in Figures 1 and 3;

Figure 5A is a longitudinal section taken along the line A-A of Figure 5, and

15 Figure 5B is a cross-section taken along the line B-B of Figure 5.

The sidehung window hinge illustrated in Figures 1 to 3 comprises a flanged track 1 which is fixed to a window frame, for example, by screws. Pivoted to the
20 track 1 is a linkage comprising an upper link 2 and a lower link 3 which is riveted to THE track 1. The upper link 2 is secured to the bottom and top of the window to allow for the hinged opening and closing of the window.

25 As shown more clearly in Figures 2 and 3, the lower link 3 is pivoted to the track 1 by a rivet 4 with the interposition of a support pad 5 made of a plastics material such as nylon. The pad 5 has side walls 6, see Figures 5 to 5B, which locate on the side edges of the
30 lower link 3 and has a hole 7 through which the rivet 4 passes to form a pivot point between the lower link and track. The pad has a recess 8 surrounding the hole for seating a raised portion 9 of the track 1 to which the rivet 4 is secured. This pad 5 provides a secure and
35 smooth surface between the lower link and the track.

A shim 10 made of a plastics material such as nylon, comprises an elongated member 11 with side walls

12. Adjacent the curved ends of the member 11 are holes 13 and 14, hole 13 having a surrounding recess 15.

The shim 10 is positioned between the upper and lower links with its side walls 12 locating on the sides 5 of the lower link 3 and is secured thereto by a rivet 16. The head of rivet 16 is located in the recess 15 in shim 10. The other end of the shim 10 is pivoted to the upper link by a rivet 17.

It will be appreciated that the smooth surface of 10 the nylon shim provides a wear-free smooth surface between the upper and lower links 2 and 3. The shim is easily fitted and more economical than the hitherto known method of coating the outer surface of the links with a plastics material.

CLAIMS:

1. A shim for sidehung window hinges comprising an elongated member of plastics material with apertures adjacent the ends of the elongated member to secure the shim to a window hinge link.
- 5 2. A shim as claimed in Claim 1, wherein the elongated member has side walls.
3. A shim as claimed in Claims 1 or 2, wherein the shim is made of nylon.
4. A shim as claimed in any preceding claim, wherein
10 one of the apertures has a recess for receiving a head of a rivet.
5. A shim as claimed in any preceding claim, wherein the ends of the elongated member are curved.
6. A sidehung window hinge comprising a linkage
15 slidable in a track the linkage including upper and lower links, a shim as claimed in any preceding claim located between the upper and lower links.
7. A sidehung window hinge as claimed in Claim 6, wherein a pad comprising an elongated member with an
20 aperture at one end is located between the lower link and the track, a rivet passing through the pad aperture to pivotally secure the lower link to the track.
8. A shim substantially as hereinbefore described with reference to and as shown in the accompanying
25 drawings.

Patents Act 1977
Examiner's report to the Comptroller under
Section 17 (The Search Report)

Application number

GB 9112083.2

Relevant Technical fields

(i) UK CI (Edition K) E2F (FSG, FSJ, FSS, FSX, FPB)

(ii) Int CI (Edition 5) E05D

Search Examiner

A H MITCHELL

Databases (see over)

(i) UK Patent Office

(ii)

Date of Search

20 OCTOBER 1992

Documents considered relevant following a search in respect of claims

1-8

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
A	GB 2215775 A (WALFAB)	1
X	GB 2101199 A (EKROMOND) Note the plastics sleeve 26	1, 6
X	GB 2084646 A (SHAW) Note the plastics element 14	1-3
X	EP 0116697 A2 (SCHUCO) Note the plastics pressure plate	1

Category	Identity of document and relevant passages	Relevance to claim(s)

Categories of documents

X: Document indicating lack of novelty or of inventive step.

Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.

A: Document indicating technological background and/or state of the art.

P: Document published on or after the declared priority date but before the filing date of the present application.

E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

&: Member of the same patent family, corresponding document.

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).

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EUR-CL (EPC): E05D015/30

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ABSTRACT:

CHG DATE=19990617 STATUS=O> A shim (10) for a window hinge comprises an elongated member (11) with side walls (12) made of a plastics material. The

ends of the elongated member (11) are curved with holes (13 and 14), one of the holes (13) having a surrounding recess (15). The window hinge has a linkage (2, 3) slidable in a track (1), the linkage including upper (2) and lower (3) links, the shim (10) being located between the upper and lower links. The shim provides a wear-free smooth surface between the upper (2) and lower (3) links.

<IMAGE>